

**WHAT IS CLAIMED IS:**

1. A method of managing data packets in a network comprising:

determining a low resource condition exists in the shared memory subsystem;

marking a current data packet;

processing an array of data packets, wherein each data packet in the array is flagged for buffering;

checking the resource condition in the shared memory subsystem;

returning to the marked data packet and removing all buffering flags from the data packets if the resources are not low;

copying all flagged data packets to a buffer; and

copying all remaining data packets to a host memory.

2. The method of Claim 1, further comprising:

receiving data packets; and

copying the data packets into a shared memory.

3. The method of Claim 1, further comprising providing a software driver with descriptors of each data packet.

4. The method of Claim 1, further comprising copying the data packets to the host memory if a low resource condition does not exist in the network.

5. The method of Claim 1, further comprising determining each data packet in the array has been processed.

6. The method of Claim 2, further comprising copying the data packets to the host memory in the order the data packets were received.

7. The method of Claim 2, further comprising receiving the data packets with a network controller.

8. A method of transferring data packets comprising:  
marking a first data packet;  
flagging any subsequent data packet for buffering;  
determining network resources are available; and  
removing any buffering flags beginning with the  
marked first data packet.

9. The method of Claim 8, further comprising determining initial network resources are limited.

10. The method of Claim 8, further comprising copying each data packet to a host memory.

11. The method of Claim 10, further comprising:  
receiving data packets; and  
copying the data packets into a shared memory.

12. The method of Claim 11, further comprising copying  
the data packets to the host memory in the order the data  
packets were received.

13. The method of Claim 8, further comprising processing  
an array of data packets.

14. An apparatus, including instructions residing on a  
machine-readable storage medium, for use in a machine system  
to handle a plurality of instructions, the instructions  
causing the machine to:

determine a low resource condition exists in the  
network;  
mark a current data packet;  
process an array of data packets, wherein each data  
packet in the array is flagged for buffering;  
check the resource condition in the network;  
return to the marked data packet and removing all  
buffering flags from the data packets if the resources are not  
low;  
copy all flagged data packets to a buffer; and

copy all remaining data packets to a host memory.

15. The apparatus of Claim 14, further causing the machine to provide a software driver with descriptors of each data packet.

16. The apparatus of Claim 14, further causing the machine to copy the data packets to the host memory if a low resource condition does not exist in the network.

17. The apparatus of Claim 14, further causing the machine to determine whether each data packet in the array has been processed.

18. The apparatus of Claim 15, further causing the machine to copy the data packets to the host memory in the order the data packets were received.